10/057,427 PATENT

## In The Claims:

1. (Currently Amended) A method for creating a narrow linewidth hybrid semiconductor laser comprising:

coupling using a ring resonator in combination with external feedback elements that use

Bragg gratings semiconductor gain chip to a single external feedback element, said external feedback element comprising a ring resonator and a Bragg grating.

- 2. (Canceled)
- 3. (Canceled)
- 4. (Canceled)
- 5. (Currently Amended) The method of claim 1 wherein said external feedback elements comprise of element is coupled to a waveguide.
- 6. (Original) The method of claim 5 wherein said waveguide is made of silicon-oxide and silicon-oxinitride.
- 7. (Original) The method of claim 1 wherein said ring resonator is based on plasma enhanced chemical vapor deposition silicon-oxide/silicon-oxinitride waveguide technology.
- 8. (Original) The method of claim 1 wherein said ring resonator further comprises a waveguide ring and two straight waveguide sections.
- 9. (Original) The method of claim 8 wherein said waveguide ring and said two straight waveguide sections are coupled through evanescent wave interaction.

10/057,427 PATENT

- 10. (Canceled).
- 11. (Canceled).
- 12. (Currently Amended) An apparatus for creating a A narrow linewidth hybrid semiconductor laser apparatus comprising:

the use of a ring resonator in combination with semiconductor gain chip coupled to a single external feedback element elements that use Bragg gratings, said external feedback element comprising a ring resonator and a Bragg grating.

- 13. (Canceled)
- 14. (Canceled)
- 15. (Canceled)
- 16. (Currently Amended) The apparatus of claim 12 wherein said external feedback elements comprise of element is coupled to a waveguide.
- 17. (Original) The apparatus of claim 16 wherein said waveguide is made of silicon-oxide and silicon-oxinitride.
- 18. (Original) The apparatus of claim 12 wherein said ring resonator is based on plasma enhanced chemical vapor deposition silicon-oxide/silicon-oxinitride waveguide.
- 19. (Original) The apparatus of claim 12 wherein said ring resonator further comprises a waveguide ring and two straight waveguide sections.

- 20. (Original) The apparatus of claim 19 wherein said waveguide ring and said two straight waveguide sections are coupled through evanescent wave interaction.
- 21. (Canceled)
- 22. (Canceled)